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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,543	06/30/2003	Hee Bok Kang	40296-0017	8258

26633 7590 03/24/2004

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EXAMINER

MAI, SON LUU

ART UNIT	PAPER NUMBER
2818	

DATE MAILED: 03/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	10/608,543		KANG, HEE BOK	
	Examiner		Art Unit	
	Son L. Mai		2818	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19 is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>06/30/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The preliminary amendment filed 06-30-03 has been entered. Claim 20 has been renumbered to claim 19. Thus, claims 1-19 are present for examination.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

3. The information disclosure statement filed 06-30-03 has been considered.

Specification

4. The disclosure is objected to because of the following informalities:

In the abstract, the form and legal phraseology often used in patent claims, such as "means" "comprising" and "said," should be avoided (line 8).

On page 12, line 13, the reference characters "SBSW1" should be –SBSW2-- and at line 15 of the same page, the reference characters "SBSW2" should be –SBSW1--.

On page 14, line 19, the reference "Fig. 18a" should be –Fig. 9--. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As for claim 1, lines 6-7, "the main bitlines" lacks strict antecedent basis. Second, at line 13, "the first column redundancy" lacks antecedent basis. It appears that the Applicant refers to "the first column redundancy cell array" in line 8 of the claim. Third, "the redundancy main bitlines" in line 15, lacks antecedent basis. Fourth, "main bitline pull-up controller" in line 14, responds to a single signal MBPUC as shown in figure 6.

As for claim 2, "the redundancy main bitline" in lines 1-2, lacks antecedent basis.

As for claim 6, line 3, "the first control signal" lacks antecedent basis.

As for claim 7, line 3, "the column address signal" lacks antecedent basis.

As for claim 9, lines 1-2, "the main sub cell block" lacks antecedent basis. The Applicant should adapt a recitation such as "each of the main sub cell blocks" to address the term.

As for claim 17, the Applicant should correct the recitation "The device of one of claim 10" in line 1.

Claims 2-18 are also rejected for incorporating the limitations of claim 1 for their dependency thereon.

Allowable Subject Matter

7. Claim 19 is allowed.
8. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach or fairly suggest in a ferroelectric memory device comprising: a main cell array, a row redundancy cell array, a first column redundancy cell array, a second column redundancy cell array, and a main bitline pull-up controller. The first column redundancy cell array is configured to share wordlines and platelines with the main cell array. The second column redundancy cell array is configured to share redundancy wordlines and redundancy platelines with the row redundancy cell array, and to share redundancy main bitlines with the first column redundancy cell array.
9. Claims 1-18 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Oowaki (U.S. Patent 6,510,071) discloses ferroelectric memory device having redundancy cell arrays for replacing defective memory cells.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son L. Mai whose telephone number is 571-272-1786. The examiner can normally be reached on 8am to 6pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571-272-1787. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

03-20-04



Son L. Mai
Primary Examiner
Art Unit 2818